**Tips for the Toothpickase Lab Graph and Discussion/Conclusion Questions**

Mrs. Krouse, Pre-AP Biology, 2015-2016

**Graph:**

Ask yourself the following questions before handing in your lab…

* Did I include a title that includes information from my axis labels (both of them!) and the key?
* Did I include axis labels for both the X and Y axis and units in parentheses (where necessary)?
* Are the scales of my axes appropriate for the data? Do the scales spread out my data points throughout the grid?
* Did I make sure to label the numbers my scales all the way to the top of the Y axis and to the far right of the X axis?
* Did I plot my data points for both sets of data (free fingers vs. taped fingers) correctly and connect the points with a line?
* Did I create a key to distinguish between my two lines (free fingers vs. taped fingers)?

Your graph will be scored using the following rubric…

|  |  |  |
| --- | --- | --- |
| **Requirement** | **Requirement Description** | **# of Points** |
| A | You have an appropriate title for your graph that includes information from both axis labels and the key | 1 |
| B | You have correct axis labels for both your X and Y axes with units in parentheses where necessary | 1 |
| C | You have appropriate scales for your data. | 1 |
| D | You have correctly plotted your data points (and lines connecting the points) for both data sets. | 1 |
| E | You have created a key that clearly distinguishes between the two lines (free fingers vs. taped fingers). | 1 |
| **Total Points** | | 5 |

**Discussion / Conclusion Questions:**

Ask yourself the following questions before handing in your lab…

* Did I use complete sentences and answer all parts of each question thoroughly?
* For Question #1, did I give the specific values for rate of reaction (round to the nearest hundredth… 2 decimal places) that I calculated for Part 1 and Part 2? Did I give the units for each value? Did I state which value was higher?
* For Question #2, did I explain why one rate of reaction (for Part 1 and Part 2) was higher than the other based on what we did differently in the two procedures?
* For Question #3, did I explain how the change that we made in the Part 2 procedure related to what happens to an enzyme when it gets really hot?
* For Question #4, did I state how the rate of reaction changes when an enzyme gets really hot? In other words, did I state whether the rate of reaction increases, decreases, or stays the same when an enzyme gets really hot? Did I explain WHY the reaction rate increases, decreases, or stays the same based on what happens to an enzyme when it gets really hot?